

# Georgia Department of Natural Resources

## Environmental Protection Division

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October 10, 2012

### CERTIFIED MAIL RETURN RECEIPT REQUESTED

BRAC Environmental Office  
ATTN: Mr. Owen Nuttall  
1386 Troop Row SW  
Fort McPherson, GA 30310

RE: Review of Draft *Finding of Suitability for Early Transfer (FOSET)*, Fort Gillem, Clayton County, Georgia dated September 2012; EPA ID No. GA0210020046.

Dear Mr. Nuttall:

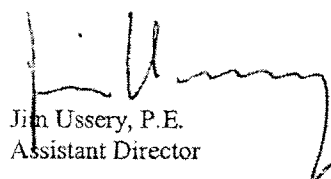
The Land Protection Branch of the Georgia Environmental Protection Division (EPD) has completed its review of the Draft *Finding of Suitability for Early Transfer (FOSET)* dated September 2012 and has generated the attached comments. Based on the property description in Section 4.0, the proposed property to be transferred [hereinafter referred to as "the Property"] comprises approximately 395 acres.

Several sites included in the FOST dated May 2012 require additional investigations to determine if there are releases of hazardous substances, or require remedial actions to address confirmed releases. We are concerned that contaminated property may be transferred through the FOST since investigations and/or remedial actions have not yet been completed at these sites. Therefore, it appears that additional contaminated sites may require incorporation into the final FOSET if the requested investigations and/or remedial actions are not completed prior to the final FOST.

Please note that Comment #7 requests information regarding the conditions of adjacent property which the Army has not previously submitted to EPD for review. Section 120 of CERCLA requires Federal "... departments, agencies and instrumentalities to afford the relevant State and local authorities the opportunity to participate in the planning and selection of the remedial action, including, but not limited to, *the review of all applicable data as it becomes available . . . [emphasis added]*." Therefore, please provide this information within thirty (30) days of receipt of this letter.

Should you have any questions concerning this correspondence, please contact Mary Brown at (404) 656-0101 or Jessica Turner at (404) 657-8689.

Sincerely,



Jim Ussery, P.E.  
Assistant Director

c: Mr. Fred Bryant, FP/FGLRA  
Ms. Tracey Epperley, USACE Savannah District  
Mr. Marshall Williams, U.S. Army REEO  
Ms. Mary Ellen Maly, AEC

File: Fort Gillem (G)

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- 1) *Section 3.0 Environmental Documentation.* This section lists 33 documents, which according to the text were used to determine “the environmental condition of the [FOSET] property.” It appears, however, that many of the reports documenting historic interim removal actions at known contaminated sites are not listed in this section. However, a more extensive list of investigation and remediation reports is included in Enclosure 3. In order to determine if the complete history of each site has been considered during the environmental condition assessment, EPD recommends incorporating additional documents as necessary into Section 3.0 and organizing the documents by site name and in chronological order.
- 2) *Section 4.0 Environmental Condition of Property (ECP).* This section states that approximately 395 acres that comprise the FOSET parcels have been identified as ECP Category 5, which refers to sites currently undergoing removal or remedial actions. However, all of the listed sites are undergoing investigations to determine the nature and extent of contamination (described as Category 7), and therefore, should be re-classified as Category 7. In addition, the summary for remediation sites in Section 4.1 states, that all sites have a “Response action in progress.” With the exception of sites FTG-01 and FTG-09, EPD is unaware of any removal or remediation efforts at any FOSET site to date. The partial source material excavations and two groundwater remediation systems at FTG-01 and FTG-09 were designed as Interim Remedial Measures, rather than final remedies, and only address a fraction of the soil and groundwater contamination at each site. The FOSET should be revised to more accurately describe the environmental condition of each FOSET parcel.
- 3) *Section 4.1 Environmental Remediation Sites.* The following comments apply to the sites identified in this section:
  - a. *FTG-01: North Landfill Area (NLA), Pages 7-9.*
    - i. *Page 7.* The first paragraph of this section provides the following description of FTG-01: “Previously known as Burial Site #5, it consists of approximately 57 known inactive and unlined landfills and refuse burial sites covering approximately 22.8 acres.” The size of the North Landfill Area (NLA) appears to have been significantly underestimated in the FOSET. Reports in our files, received as recently as September 2012 (*Performance Monitoring Report for FTG-01 IRA System*), describe the NLA as approximately 300 acres of heavily wooded land that was used for landfilling, trenching, and burning of waste materials. Historical geophysical surveys and soil sampling efforts have identified 356 distinct burial waste sites, many of which are not limited to the areas associated with the location of known groundwater plumes. We are unaware of any removal efforts at the NLA that have reduced the footprint of the site 277.2 acres. The majority of the historic removal efforts at the NLA, which we are aware of, were only partially completed, resulting in an unknown amount of hazardous material remaining in the NLA. Therefore, the estimated total area of the NLA should be approximately 300-acres, rather than 22.8-acres.
    - ii. In order to locate and estimate the number of distinct remaining burial sites and to understand the extent of contaminated soil and source material remaining at FTG-01, a complete history of the investigation and removal efforts at this site should be created and mapped through a detailed review of historic documents.
    - iii. *Page 9.* The current status of this site is described as, “The Army submitted a Work Plan for the Revised Remedial Investigation and Baseline Risk Assessment for FTG-01 in August 2011 and received comments from the GAEPD on February 9, 2012. The Army is planning submittal of its response to comments to the GAEPD in September 2012.” As of the date of this correspondence, no response to comments has been received from the Army.

- b. *FTG-02: Southeast Area Dump Site, Pages 9-10.* The land survey included in Enclosure 3 identifies FTG-02 parcel FOSET IV. The last paragraph of this section, Current Status, states, "By letter dated April 2, 2012, GAEPD provided review comments for the Draft RI and BHHRA dated November 2010 and requested that the Army conduct additional assessment activities. The requisite funding is not available in Fiscal Year 2012. The Army may conduct the additional assessment when funding is available." Our review of the Remedial Investigation indicated that (1) the unknown extent of buried debris which, based on available data, likely extends beyond the currently defined FOSET boundary; (2) the extent of Lead contamination in surface and subsurface soils is unknown; and (3) the extent of groundwater contaminated with volatile organic compounds (VOCs) is unknown. VOCs were identified in the upgradient monitoring well associated at this site, indicating that an unknown upgradient source may exist on the FOST parcel. Since the nature and extent of soil and groundwater contamination at this site have not been determined, we are unable to concur with the boundaries defined for parcel FOSET IV until the additional requested investigations at FTG-02 are completed.
- c. *FTG-07: Burial Site #1, Pages 10-12.* The second paragraph on Page 11 states, "There are two dissolved-phase plumes, one of which has migrated off the Property. Soil data did not identify sources for organic compounds that were found in groundwater." The last paragraph on Page 11 states that the 2008 RI reported finding, "1) no source of chlorinated solvents in site soils; 2) groundwater contaminants probably originated from isolated historical releases at FTG-07; and 3) soil remediation or removal was not warranted to protect human health." The soil investigation and trenching activities conducted thus far at FTG-07 have not identified the source of VOC contamination in the groundwater because they have been limited in nature and aerial extent. The location of the source material and/or suspected "isolated historical releases," as described in the 2008 Remedial Investigation (RI), should be identified and remediated to prevent further contamination of the groundwater which is migrating off-site into residential neighborhoods.
- d. *FTG-08, Burial Site #2, Pages 12-13.* The last paragraph on Page 12 states, "In a meeting on December 20, 2011, the GAEPD requested that the Army collect three additional confirmation soil samples. The soil samples were collected on March 26, 2012 and the Army expects to submit a data report to the GAEPD in September 2012." While it is correct that EPD requested additional soil samples at FTG-08, in an email to Mr. Owen Nuttall on February 7, 2012, four soil borings were requested, with one surface soil sample and two subsurface soil samples from each boring location. Each sample was to be analyzed for VOCs, semi-volatile organic compounds (SVOCs), metals, and pesticides. To date, the analytical results from the March 2012 soil sampling effort have not been submitted for review. If the soil sampling at FTG-08 indicates that a No Further Action (NFA) determination is warranted for soils at the site, the remedial actions for groundwater and surface water contamination at FTG-08 can be incorporated into those remedial actions for the FTG-07/10 study area.
- e. *FTG-09, Burial Site #3, Pages 13-14.* The text in this section identifies the status of FTG-09 as "Response action in progress." Although interim remedial measures systems, in the form of a dual phase extraction (DPE) and groundwater extraction system, have been operational at FTG-09 since 2009, highly contaminated source material (waste and contaminated soils) remains buried at the site and highly contaminated groundwater is migrating off the Property into residential neighborhoods and discharging to surface water in off-site areas. Additional remedial actions are necessary to remediate the source and the plume on and off site.

The current status described on Page 14 states that responses to EPD comments regarding the revised RI work plan would be submitted for review in September 2012. To date, no response to comments has been received.

- f. *FTG-10: Burial Site #4, Pages 14-15.* As described on page 14, "FTG-10 is an inactive, unlined landfill covering approximately 2.75 acres." The extent of buried source material and associated contaminated surface and subsurface soil has not been identified. No remedial actions have been taken to address the source material such as installation of a landfill cap or waste removal activities. This site is the source of VOCs, SVOCs, pesticide and metals contamination in the surface water and groundwater, although the specific source of contamination in groundwater has not yet been located. This section should be revised to more accurately reflect the status of this contaminated site.
  - g. *FTG-14, Eastern Sewage Treatment Plant, Pages 15-17.* In correspondence dated May 22, 2012, EPD outlined the additional sampling necessary to further investigate FTG-14. It is our understanding that this additional soil and groundwater sampling is planned for the week of October 8, 2012 to determine contaminant levels at the source (former plant foundations, sludge drying bed, and piping). Additional monitoring wells will also be installed to determine the direction of groundwater flow in the overburden aquifer and investigate the extent of groundwater contamination. This additional sampling is necessary in order to determine the nature and extent of contamination at this site, which may extend beyond the currently defined boundaries. Therefore, EPD cannot concur with the northeastern boundaries defined for the FOSET I parcel.
  - h. *FTG-001-R-01, Trap and Skeet Range, Page 17.* Although the Army has recommended removal actions for the Lead and polycyclic aromatic hydrocarbon (PAH) contaminated soils at this former trap and skeet range, such removal actions are complicated as the range overlies a portion of the FTG-01 NLA. Geophysical surveys suggest that buried waste may be present beneath the footprint of the trap and skeet range. The text in this section should be revised to clarify that the trap and skeet range is located on top of the FTG-01 NLA.

The current site status, described on Page 17, states that responses to EPD comments regarding the revised RI work plan would be submitted for review in September 2012. To date, no response to comments has been received.
  - i. *FTG-16, Pesticide Mixing Facility, Page 18.* While EPD concurs with Army's plan to remove soil contaminated with metals and pesticides, the extent of the soil contamination has not been determined. To perform a successful removal action, the extent of contamination must be identified prior to the start of excavation activities. EPD will be requesting a revised RI to determine the extent of metals and pesticide contamination.
- 4) *Section 4.2 Storage, Release or Disposal of Hazardous Substances, Page 19.* A 90-day storage area was formerly located at Building 315 on the FOSET parcels and several satellite accumulation points (SAPs) were historically located on the FOST parcels. While EPD has no knowledge of releases of hazardous substances at the former 90-day storage area and SAPs, we have no sampling data that confirms that these areas are free of soil and groundwater contamination.
- 5) *Section 4.7 Radiological Materials, Page 20.* Groundwater sample data reported in an internal Army memorandum dated May 11, 1982 documented levels of Gross Alpha content in two monitoring wells at FTG-01 above the US EPA Maximum Contaminant Level (MCL) of 15 pCi/L. In addition, historical reports state that items containing radiological commodities, such as night vision goggles, may have been disposed of in the landfill. To date, a comprehensive radiological survey of the North Landfill Area has not been conducted, and as a result, the radiation hazard associated with FTG-01 is unknown. Section 4.7 should be revised to include the above relevant information regarding the potential radiological hazards at FTG-01.

- 6) *Section 4.9 Munitions and Explosives of Concern (MEC), Pages 21-22, and Table 6.* The following comments apply to this section and table:
- a. This section describes a Small Arms Range located within the NLA, and states, "Previous investigations in the NLA did not identify potential contamination associated with the use of the small arms range." However, the former investigations at the NLA were focused on buried waste and resulting contamination rather than a survey of potential spent munitions associated with the former small arms range in the surface and subsurface soil. This section and Table 6 should be revised to identify the former small arms range as an area requiring additional investigation.
  - b. During source removal activities conducted at FTG-09 during the summer of 2002, Munitions and Explosives of Concern (MEC) in the form of three 4.2-inch mortar shells were found buried in the subsurface. In addition, this source removal effort was not completed due to the extremely high VOC detections in the air along the installation fence line. Therefore, additional MEC may remain in place at FTG-09, and the appropriate level of caution should be taken in future removal actions at this site. Discussion of this MEC was not included in this section or in Table 6 found in Enclosure 9. The FOSET and Table 6 should include a discussion of MEC at FTG-09.
  - c. While it is believed that the likely demilitarization and burial location of the 1,000-pound German-made mustard bomb was FTG-09 rather than FTG-11, the bomb carcass has never been located. Therefore, the location of the buried bomb carcass should be considered a separate MEC until its location is identified. The FOSET and Table 6 should include this information.
  - d. The Army's recommendation in the RI completed in 2011 for the former Trap and Skeet range was a removal action to mitigate the Lead in surface soil. Based on discussions in recent partnering meetings, soil removal is no longer planned at this site due to the potential buried waste material underlying the former range footprint. This section and table should be revised to reflect the most recent remedial decisions regarding the former trap and skeet range.
- 7) *Section 5.0 Adjacent Property Conditions.* This section states, "There are no conditions adjacent to the Property that present an unacceptable risk to human health and the environment." We have the following comments on this section:
- a. FTG-11 is discussed in Section 4.9, with the site status listed as "Response Complete." A No Further Action (NFA) Request was received on October 5, 2012, and is currently being reviewed. If regulatory review does not concur with site closure recommendations, this site must be added to the list of contaminated sites included in the FOSET until the recommended investigations and/or remedial activities are completed.
  - b. The 81st RSC Storage Area (FTG-17), which is a former parking lot and vehicle storage area, is not discussed in the FOSET, but is discussed in several sections of the FOST with a status of "Response action in progress." The Army has indicated that confirmatory sampling at site has been conducted to demonstrate that removal actions have been completed. As of the date of this correspondence, the site inspection (SI) report has not been received. The SI report must be submitted with ample time for regulatory review and approval prior to the FOST transfer date. If the report is not received prior to the FOST date or if regulatory review does not concur with site closure recommendations, this site must be added to the list of contaminated sites included in the FOSET until the recommended investigations and/or remedial activities are completed.

- c. The *Final BRAC 2005 SI Revision 1* report dated January 20, 2011 report identified a historic 500-gallon hazardous waste underground storage tank at Building 403. In that report, the Army recommended investigation of the tank and groundwater sampling. To date, the recommended investigation has not been conducted. If the recommended investigations and potential remedial actions are not completed prior the final FOST, Building 403 should be removed from the FOST and transferred through the FOSET.
- d. The *Final BRAC 2005 SI Revision 1* report dated January 20, 2011 identified former Building 116 as a pesticide storage and mixing facility. Based on previous sampling at the installation, Organochlorine pesticides have been identified at this site. Specifically, 4,4-DDD, 4,4-DEE, 4,-DDT, Aldrin, alpha-Chlordane, Dieldrin, and gamma-Chlordane have been detected in the soil and/or storm drain sediment at former Building 116. In April 2012, two soil samples were collected and analyzed for organophosphorous pesticides, and while the sample results provided non-detect concentrations, these samples were not analyzed for the class of pesticides that have historically been identified there. Therefore, additional sampling is necessary at Building 116 in order to evaluate the extent of historic releases at this former building. If the recommended investigations and potential remedial actions are not completed prior the final FOST, Building 116 should be removed from the FOST and transferred through the FOSET.
- e. *Stormwater Outfalls*. The following comments apply to stormwater outfalls located on both the FOST and FOSET parcels:
  - i. The Stormwater Outfalls are listed in the FOST as Category 1 parcels. According to the *BRAC 2005 SI Report*, the Army states, there are a total of 18 outfalls, five of which have been characterized; however, the identification of the outfalls and the details of the characterization have not been submitted to EPD for review. Additional information regarding the sampling that was conducted at the five Stormwater Outfalls referenced in the *2005 BRAC SI Report* and any other information that substantiates the inclusion of stormwater outfalls in the FOST has not yet been submitted for EPD review. Please submit this information to EPD for review.
  - ii. The *2005 BRAC SI Report* states a release of hazardous substances, specifically Dieldrin and polynuclear aromatic hydrocarbons (PAHs), was identified at Stormwater Outfall Number 129, and the Army concurred that additional investigations were necessary and would be conducted pending funding availability. Therefore, the inclusion of Stormwater Outfall Number 129 in the FOST is not supported by the data that has been collected thus far. If the recommended investigation and potential remedial action are not completed prior to the final FOST, Outfall 129 should be removed from the FOST and transferred through the FOSET.
  - iii. The locations of six stormwater outfalls (5 outfalls already characterized and Outfall 129) are depicted in Figure 3-14 of the *Draft BRAC 2005 SI Work Plan*; however, the locations of the remaining twelve (12) outfalls have not been communicated to EPD. Please provide a figure depicting the locations of all stormwater outfalls at the former installation. This figure should also depict and label the locations of installation structures, roads, and water bodies for reference. Based on a review of the stormwater outfall location map and the available inspection documentation, investigation may be necessary at a portion or all of the remaining twelve (12) stormwater outfalls that have not yet been investigated.

- f. *Former and current oil-water separators (OWS) at Buildings 113, 305, 307, 312, 401, 606, 610, and 617.* No documentation has been provided to EPD regarding the condition of the former and current oil-water separators. EPD and the Army have scheduled a site visit on October 12, 2012 to inspect the condition of the OWS, and based on the inspection results, investigations in the form of Preliminary Assessments/Site Inspections (PA/SI) may be necessary at a portion or all of the OWS that have not yet been investigated.
  - g. *Non-UST/AST Storage, Release or Disposal of Petroleum Products.* Section 4.3.2 of the FOST stated, "The petroleum was used for the following types of activities: motor pool operations, emergency generator operations, washrack operations, and oil-water separators (OWS). All non-UST/AST petroleum product storage operations have been terminated on the Property. There was no evidence of petroleum releases in excess of 55-gallons as a result of these activities." Copies of the site inspection documents and/or applicable soil or groundwater sample results at each of these areas have not been provided to EPD for review. Releases have been identified at former motor pools, washracks, and oil-water separators at other military facilities due to historical undocumented disposal of solvents and petroleum products with high metals concentrations. Depending on the condition of these areas, PA/SIs may be necessary to determine if a release has occurred.
  - h. *Section 4.4 Polychlorinated Biphenyls (PCBs).* Although the information in the FOSET describes the known risk of PCB contamination on FOSET parcels, it does not include the former substation identified in Section 4.4 of the FOST. Based on a review of a historical aerial photograph taken in 1984, an electrical substation was located at the northwest corner of North 3rd Avenue and D Avenue. Although PCB production was banned in 1979, the use of transformers containing PCB dielectric fluid continued for many years following the production ban. Since the construction and demolition dates of this substation are unknown, a PA/SI should be initiated at this former substation to determine if the soils have been impacted by the use of PCB transformers.
  - i. *Water Tower at the Intersection of Hood Avenue and 1<sup>st</sup> Street.* Based on a review of available historical aerial photographs, this water tower has been located at the intersection of Hood Avenue and 1<sup>st</sup> Street since before 1946. It is likely that over the lifetime of this water tower, Lead-based paint was used to paint the water tower. Prior to each repainting effort, water towers are typically sandblasted to remove the old paint, which results in paint chips falling to the ground. Lead contamination in the surface and subsurface soils has been documented at similar water towers at other military installations (including Fort McPherson). Therefore, a PA/SI should be conducted at the water tower.
- 7) *Section 6.0 Environmental Remediation Agreements.* This section states, "There are no environmental remediation orders or agreements applicable to the Property being transferred." Please note that FTG-01 is listed as Site No. 10009 on the Georgia Hazardous Sites Inventory (HSI) and is subject to Administrative Order No. EPD-HSR-002. Until the required delineation and remediation is completed, this site will remain on the Georgia HSI.
- 8) *Figure 3 Environmental Sites Map.* The hard copies of this map that were public noticed do not differentiate between the areas defined as FOST property and the areas defined as FOSET property. This was also a comment identified with the FOST map, which was public noticed in May 2012. In order to correctly show the FOSET areas in visible shading, the map should be printed on a larger size paper than that which was provided in the public noticed copy.

9) *Enclosure 11 Environmental Protection Provisions.* Section 3.B. of the enclosure, which discusses Munitions and Explosives of Concern (MEC) states, "A munitions response for the buried [1,000 pound German] bomb was conducted in 1995. Soil removal is planned at the former trap and skeet range, FTG-001-R-01. A summary of MEC discovered on the Property is provided in Enclosure 9. A summary of the map depicting the locations of munitions response is provided at Enclosure 1." The following comments apply to this section:

- a. It is unclear what munitions response was conducted for the buried German mustard bomb in 1995. Military records from our files indicate that demilitarization of the bomb was conducted in 1940s, which is the only munitions response that EPD is aware of. Geophysical investigations and limited soil sampling at FTG-09 and FTG-11 have failed to identify the location of the bomb carcass. This section should be revised as necessary to clarify that the location of the mustard bomb carcass is unknown.
- b. During source removal activities conducted at FTG-09 during the summer of 2002, MEC in the form of three buried 4.2-inch mortar shells were discovered. Discussion of this MEC was not included in Section 4.9 or Table 6. This section should be revised as necessary.
- c. Please revise this section as necessary to reflect changes requested in Comment 5 above.
- d. The map included in Enclosure 1 does not identify the former small arms range within FTG-01. Please revise the map to include this range.

10) *Typographical Errors.* The following typographical errors were noted in the FOSET:

- a. The deed information referenced in Section 6.0 on Page 23 is provided in Enclosure 10, rather than Enclosure 9.
- b. The Responsiveness Summary referenced in Section 7.0 on Page 23, is provided in Enclosure 12, rather than Enclosure 11.
- c. The Environmental Protection Provisions are provided in Enclosure 11, rather than in Enclosure 10, which is referenced on Pages 1, 3, and 7 of the FOSET text and on Page 6 of Enclosure 10.